

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE
 in its capacity as elected Office

Date of mailing (day/month/year) 31 May 2001 (31.05.01)	
International application No. PCT/US00/18041	Applicant's or agent's file reference FP64074-3/SM
International filing date (day/month/year) 30 June 2000 (30.06.00)	Priority date (day/month/year) 01 July 1999 (01.07.99)
Applicant KLEY, Victor, B.	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
 10 January 2001 (10.01.01)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Olivia TEFY Telephone No.: (41-22) 338.83.38
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PATENT COOPERATION TREATY

PCT

From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING
OF A CHANGE(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

To:

SLONE, David, N.
Townsend and Townsend and Crew LLP
Two Embarcadero Center
8th Floor
San Francisco, CA 94111-3834
ETATS-UNIS D'AMERIQUE

Date of mailing (day/month/year) 21 January 2002 (21.01.02)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference FP64074-3/SM	
International application No. PCT/US00/18041	International filing date (day/month/year) 30 June 2000 (30.06.00)

1. The following indications appeared on record concerning:		
<input checked="" type="checkbox"/> the applicant	<input type="checkbox"/> the inventor	<input type="checkbox"/> the agent <input type="checkbox"/> the common representative
Name and Address RAVE, L.L.C. Suite 607 780 Montague Expressway San Jose, CA 95131 United States of America	State of Nationality US	State of Residence US
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:		
<input checked="" type="checkbox"/> the person	<input type="checkbox"/> the name	<input type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence
Name and Address GENERAL NANOTECHNOLOGY, LLC 1119 Park Hill Road Berkeley, CA 94708 United States of America	State of Nationality US	State of Residence US
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	
3. Further observations, if necessary:		
4. A copy of this notification has been sent to:		
<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned	
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned	
<input checked="" type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:	

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland	Authorized officer Ingrid AULICH
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

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REC'D 20 APR 2001

WIPO

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

10/019009

Applicant's or agent's file reference 15772-6-1PC	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/18041	International filing date (day/month/year) 30 JUNE 2000	Priority date (day/month/year) 01 JULY 1999
International Patent Classification (IPC) or national classification and IPC IPC(7): H01J 37/26 and US Cl.: 250/306, 307; 73/105		
Applicant GENERAL NANOTECHNOLOGY, L.L.C.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

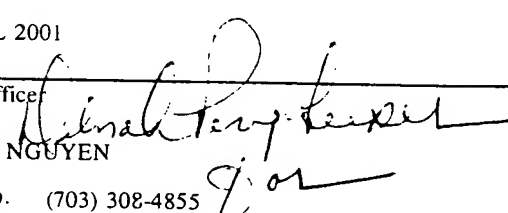
2. This REPORT consists of a total of 3 sheets.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 0 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 10 JANUARY 2001	Date of completion of this report 02 APRIL 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer  KIET T. NGUYEN
Facsimile No. (703) 305-3230	Telephone No. (703) 308-4855

I. Basis of the report1. With regard to the **elements** of the international application:*☒ the international application as originally filed☒ the description:

pages 1-30 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

☒ the claims:

pages 31-36 , as originally filed
pages NONE , as amended (together with any statement) under Article 19
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

☒ the drawings:

pages 1-12 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

☒ the sequence listing part of the description:

pages NONE , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

- ☒ the description, pages NONE
☒ the claims, Nos. NONE
☒ the drawings, sheets/fig NONE

5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/18041

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. statement**

Novelty (N)

Claims 1-49

YES

Claims NONE

NO

Inventive Step (IS)

Claims 1-49

YES

Claims NONE

NO

Industrial Applicability (IA)

Claims 1-49

YES

Claims NONE

NO

2. citations and explanations (Rule 70.7)

Claims 1-49 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a scanning probe microscope and/or method having means for measuring a portion, all of a sample volume or any other parameter associated with a target volume or making any change to the sample volume as recited in claims 1, 14 and 26; an illumination system having means for introducing the illumination along one or more edges of a sample as recited in claims 39 and 41; or a nanomachining system having mechanical, magnetic or electrostatic means for clamping a tip as recited in claim 44, means for stopping the vibration into a tip as recited in claims 45 and 46, or means for following the loci of a target nanomachining step to nanomachine a particular feature in a target volume as recited in claims 47, 48 and 49.

----- NEW CITATIONS -----

NONE

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: DAVID N. SLONE
TOWNSEND AND TOWNSEND AND CREW LLP
TWO EMBARCADERO CENTER,
8TH FLOOR
SAN FRANCISCO, CA 94111 3834

PCT

NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing
(day/month/year)

17 APR 2001

Applicant's or agent's file reference

15772-6-IPC 020921-000710PC

IMPORTANT NOTIFICATION

International application No.

PCT/US00/13041 ✓

International filing date (day/month/year)

30 JUNE 2000 ✓

Priority Date (day/month/year)

01 JULY 1999 ✓

Applicant

GENERAL NANOTECHNOLOGY, L.L.C. ✓

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. **REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

TOWNSEND & TOWNSEND
& CREW
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Name and mailing address of the IPEA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

KIET T. NGUYEN

Telephone No. (703) 308-4855

Km

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 15772-6-1PC	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/18041	International filing date (day/month/year) 30 JUNE 2000	Priority date (day/month/year) 01 JULY 1999
International Patent Classification (IPC) or national classification and IPC IPC(7): H01J 37/26 and US Cl.: 250/306, 307; 73/105		
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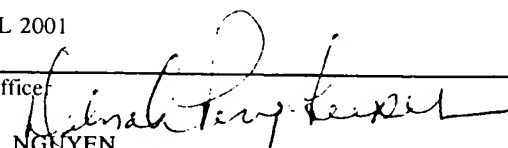
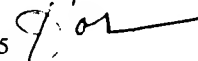
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- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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Date of submission of the demand 10 JANUARY 2001	Date of completion of this report 02 APRIL 2001
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer  KIET T. NGUYEN
Facsimile No. (703) 305-3230	Telephone No. (703) 308-4855 

I. Basis of the report1. With regard to the **elements** of the international application:*

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pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the claims:
pages 31-36 , as originally filed
pages NONE , as amended (together with any statement) under Article 19
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the drawings:
pages 1-12 , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____
- ☒ the sequence listing part of the description:
pages NONE , as originally filed
pages NONE , filed with the demand
pages NONE , filed with the letter of _____

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

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- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
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- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

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- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
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4. ☒ The amendments have resulted in the cancellation of:

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- ☒ the drawings, sheets/fig NONE

5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. statement**

Novelty (N)	Claims	<u>1-49</u>	YES
	Claims	<u>NONE</u>	NO
Inventive Step (IS)	Claims	<u>1-49</u>	YES
	Claims	<u>NONE</u>	NO
Industrial Applicability (IA)	Claims	<u>1-49</u>	YES
	Claims	<u>NONE</u>	NO

2. citations and explanations (Rule 70.7)

Claims 1-49 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest a scanning probe microscope and/or method having means for measuring a portion, all of a sample volume or any other parameter associated with a target volume or making any change to the sample volume as recited in claims 1, 14 and 26; an illumination system having means for introducing the illumination along one or more edges of a sample as recited in claims 39 and 41; or a nanomachining system having mechanical, magnetic or electrostatic means for clamping a tip as recited in claim 44, means for stopping the vibration into a tip as recited in claims 45 and 46, or means for following the loci of a target nanomachining step to nanomachine a particular feature in a target volume as recited in claims 47, 48 and 49.

----- NEW CITATIONS -----
NONE

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/18041

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01J 37/26

US CL : 250/306, 307; 73/105

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 250/306, 307; 73/105

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
NONE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5,408,094 A (Kajimura) 18 April 1995 (18/04/95), see entire document, especially fig. 6.	1-49
A	US 5,756,997 A (Kley) 26 May 1998 (26/05/98), see entire document, especially figs. 1 and 4-5.	1-49

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" Document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

07 SEPTEMBER 2000

Date of mailing of the international search report

16 OCT 2000

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

KIET T. NGUYEN

Telephone No. (703) 308-4855